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(54) Abstract Title

Security system having a plurality of restricted access compartments

(57) A security system includes a container (2) divided into compartments (4, 6, 8, 10), a sliding door (12) allowing access to only one compartment at a time and an operating mechanism, responsive to a controller, to move the door.

One or more of the compartments may have a lid (16), dimensioned such that it will only open when correctly aligned with an aperture (14) in the sliding door.

The controller may include a data processor, communicating with other systems and logging the contents and access to the compartments, a motor and a spoiling system, such as ink or dye injectors to spoil the content of the container in case of theft. The system is particularly suitable for the delivery and collection of cash.

Also disclosed is a cabinet with a plurality of receiving stations for engaging such containers and methods of transporting and storing goods in such containers.

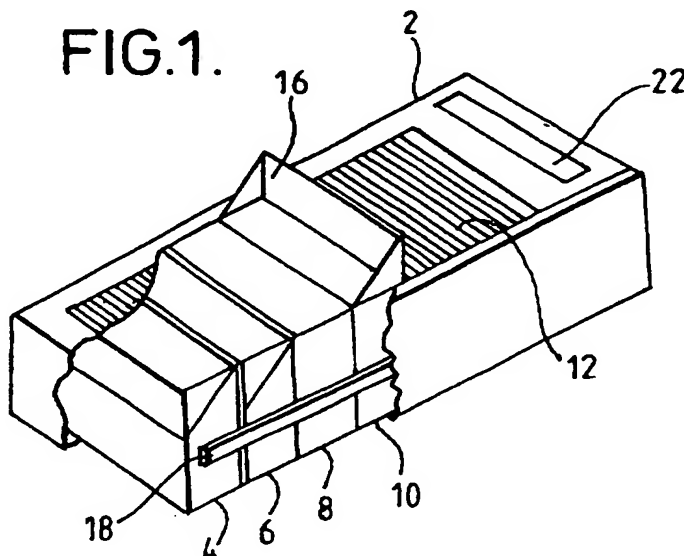


FIG.1.

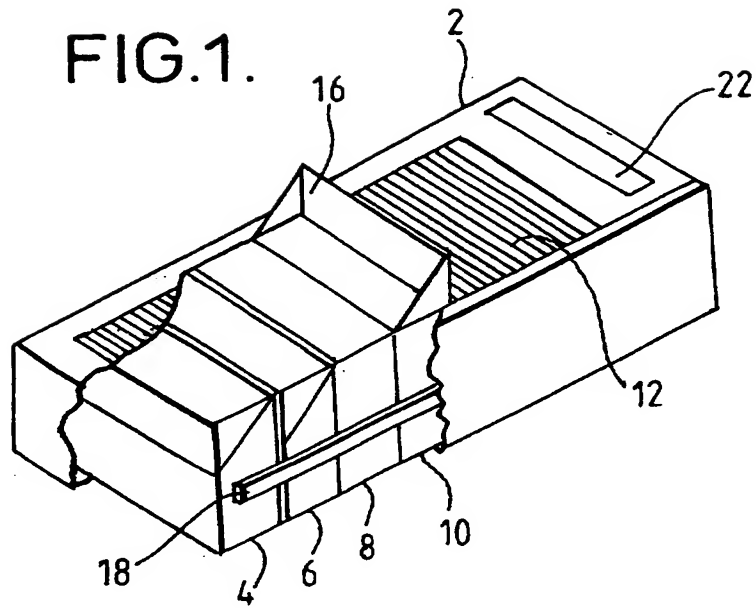
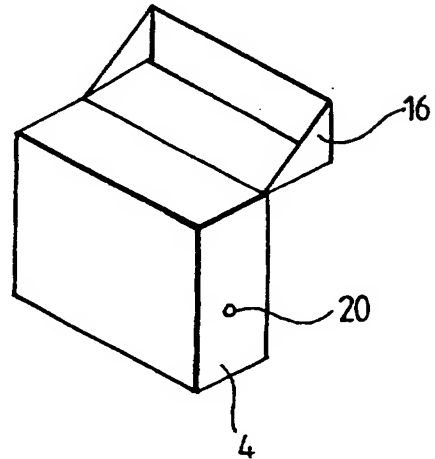


FIG.2.



12.



38



3/7

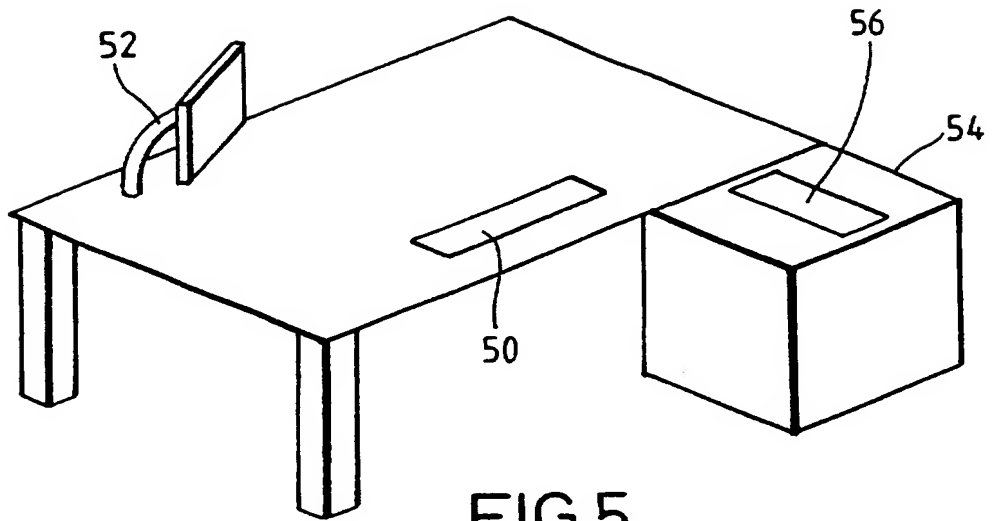


FIG. 5.

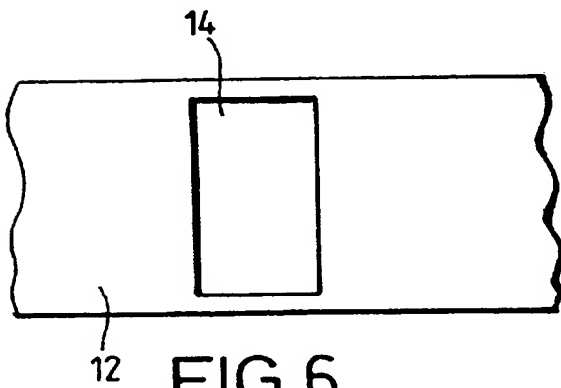


FIG. 6.

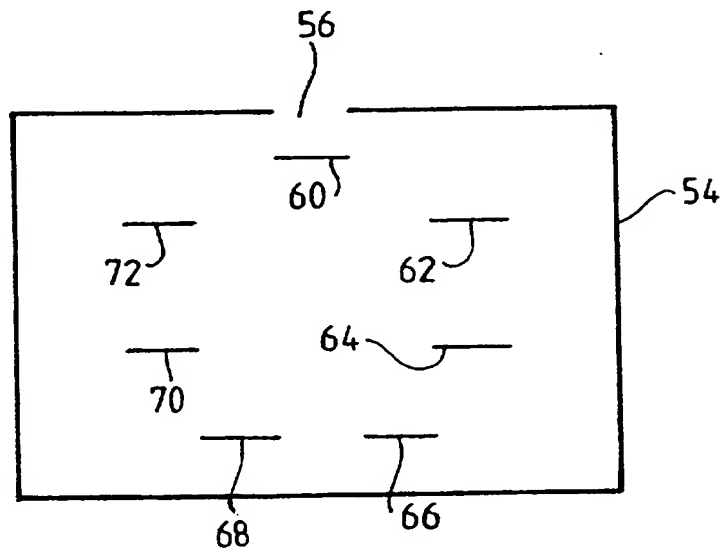


FIG. 7.

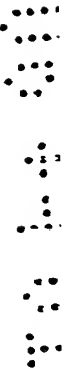
Compartment	Op	1	2	3	4	5	6	7	8	9	10	Total Value
Contents value £		5	5	5	10	10	10	20	20	0	0	
Operator allocation		0	0	0	0	0	0	0	0	0	0	
Current Values		0	0	0	0	0	0	0	0	0	0	£

FIG.8.

Compartment	Op	1	2	3	4	5	6	7	8	9	10	Total Value
Contents value £		5	5	5	10	10	10	20	20	0	0	
Operator allocation		0	0	0	0	0	0	0	0	0	0	
Current Values		1	1	1	1	1	0	0	0	0	0	£ 35.00

Initial Contents (No)		1	1	1	1	1	0	0	0	0	0	£ 35.00
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FIG.9.



Compartment	Op	1	2	3	4	5	6	7	8	9	10	Total Value	Clear Form
Contents value £	5	5	5	10	10	10	10	20	20	0	0		
Operator allocation		0	0	1	0	0	1	1	0	0	0		
Current Values		1	1	0	1	1	1	1	0	0	0	£ 60.00	
Initial Contents (No)		1	1	1	1	1	0	0	0	0	0	£ 35.00	Add Float
Transaction 1						1	1					£ 30.00	Transaction 1
Notes in												£ 5.00	Cash Taken £ 25.00
Change	1			-1								£ 60.00	
Now in Till		1	1	0	1	1	1	1	0	0	0	£ 60.00	

FIG.10.

7 0 4 0 0 0

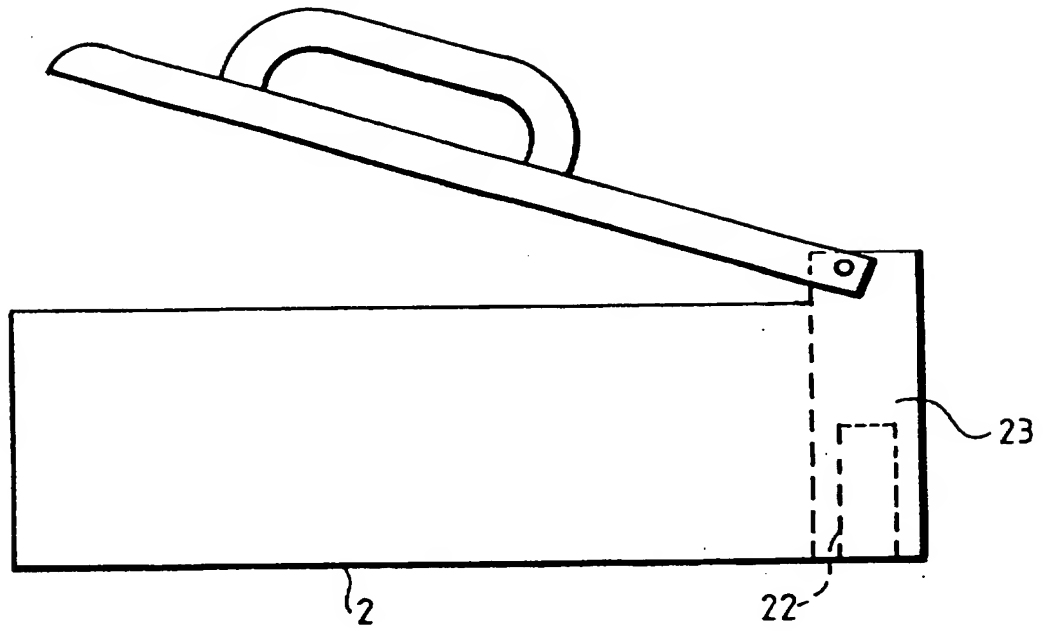


FIG. 12.

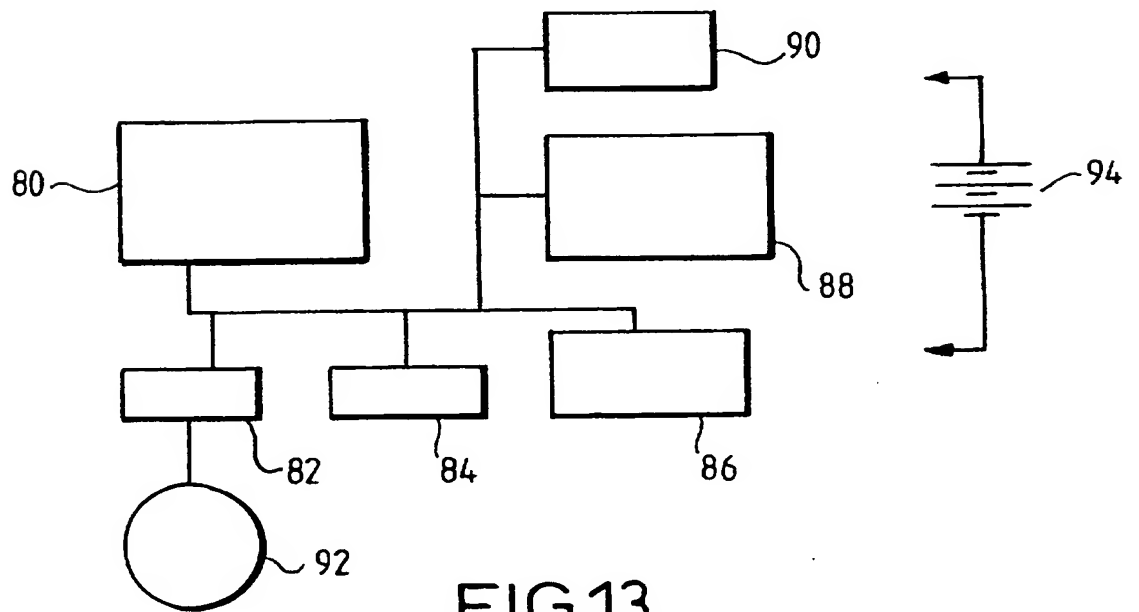


FIG. 13.

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SECURITY SYSTEM

The present invention relates to a security system. Components of the security system can function both as delivery containers and dispensing devices. Such a system may be used to protect valuable items such as cash, jewels, official documents having a value and drugs.

Hitherto, valuable items, such as cash are normally delivered to or removed from stores and banks in secure containers. However, the container is normally opened leaving its contents momentarily unprotected as the cash is transferred to or from the container to whatever storage system the shop or bank employs. Furthermore, a separate delivery or collection run has to be made to each shop or bank, unless a decision is made to accept the risk that cash intended for one shop or bank maybe stolen from the premises of another shop or bank whilst a delivery or collection is made to that other shop or bank.

According to a first aspect of the present invention, there is provided a security system, comprising a container subdivided into a plurality of compartments, the container having an access control element such that only one compartment can be open at a time, and a operating mechanism responsive to a controller for moving the access control element so as to allow access to a predetermined compartment.

It is thus possible to provide a container which can allow multiple deliveries or pickups to be made from a single container whilst being divided into compartments such that the items delivered to or collected from each client remains separate from one another and that those compartments which are not allocated to a client to whom a drop off is currently being made remain closed.

Preferably the container is subdivided into the compartments, either by fixed internal walls, moveable internal walls, or by drop in or removable containers.

Advantageously the container is substantially in the form of a rectangular parallelepiped as this allows the easy subdivision of the container into little boxes.

Preferably the access control element is a moveable shutter having a aperture formed therein. Preferably the aperture is dimensioned such that when the aperture is aligned with a compartment, only the contents of a single compartment can be accessed.

Advantageously a plurality or all of the compartments have a lid, with the lid of each compartment being dimensioned such that it can only open when the aperture of the shutter is correctly aligned with the compartment. This has the advantage that, whilst the shutter is moving to its predetermined position to allow access to a compartment, none of the compartments over which it passes become accidentally open, and neither are two compartments simultaneously accessible, even for the briefest of time.

If desired, the container may have two access control elements provided, such that the access control elements must be simultaneously aligned in order to allow a compartment to be opened.

Preferably the container has at least one engagement region for engaging with a control unit. Alternatively the container may contain or be integrated with a control unit.

Preferably the control unit includes one or more of a data processor; a motor for driving the access control element; and a spoiling system. The controller may further include a locking mechanism for locking the control unit to a security container, or a security container to a support.

Preferably the data processor may be arranged to communicate with other security systems, either via a cable or a cable free communications channel, so that it can negotiate with the other system to validate that the data processor and the security container have been taken to the correct location for a operation involving either a delivery or pickup of goods which are to be protected. Once the data processor has assured itself that it is at the correct location, it can operate a motor to drive the access control element to open a predetermined one of the compartments. Thus in the case of a cash delivery, money can either be removed from that compartment for use in a bank or shop, or the takings of the bank of shop can be loaded into that compartment. Preferably the data processor keeps a log of

which compartment is allocated to a given client such that their money or valuables can be uniquely identified.

Alternatively and/or additionally, the data processor may be responsive to manually operated access control means, such as one or more keys (mechanical or electronic), or passwords in order to identify the correct destination, i.e. which client the container is at, and to confirm that the security arrangements for that client have been met, i.e. the container has not been stolen or hijacked.

Advantageously the control unit and/or the container includes a spoiling mechanism, such as ink or dye which can be injected under pressure via a delivery path into the compartments of the container in order to spoil their contents in the event of an attack.

Advantageously one embodiment of the control unit is a removable control device with a sacrificial hood attached thereto, the hood having penetration detection means such that during an attack, the hood becomes damaged but in so doing gives the security system sufficient time in order to operate the spoiler means to ensure that the contents of the compartments are spoiled. Similarly, such penetration means may be provided on the body of the container. The penetration detection means may be in the form of one or more conductors which become damaged in an attack.

The container may be used to make multiple deliveries and drop offs. Thus each compartment may be allocated to one client in delivery mode, and once the delivery has been made, the compartment becomes free for reallocation to a further client, or the same client, in a collection mode. Thus, for example, a single container may be used to make multiple cash deliveries within, for example, a shopping centre and/or to collect takings from multiple shops thereby allowing the deliveries to be made more quickly than has hitherto been the case, effectively reducing the cost associated with each cash transport action.

Preferably the engagement region can be accessed from opposing sides of the container. Alternatively multiple engagement regions may be provided such that two control units or

other attachments can engage with the container concurrently. In a preferred embodiment, only a single engagement region is provided and each control unit extends only partially (less than half way) into the engagement region, thereby allowing the two control units or attachments to engage with the container simultaneously. This means that responsibility for protecting the contents of the container can be passed from a first control unit to a second control unit without any moment occurring in which the container is not attached to and protected by a control unit.

Thus, wherein the control unit is integrated with the container, the container may engage selectively with a carrying hood or other handle configuration so as to facilitate carrying of the container. The container may also attach, physically or electronically, to a support, for example within a cash-in-transit vehicle or a bank or shop till.

Advantageously, a control unit may be embodied within a till. Thus in a first till installation, each compartment may be allocated to a particular value of currency, and a till controller would, on the basis of the value of the transaction and an indication of the value of the coins or notes presented to the cashier, control access to various ones of the compartments such that money could be put in the till and the current change given. This has the advantage that only one of the till compartments is accessible at any one time thereby reducing the risk of loss from thefts where a customer leans over the cash drawer of the till and simply grabs the money and runs away.

Advantageously the till controller may allocate different compartments to different members of staff. Thus each staff member only has access to the compartment allocated to them. Any discrepancies in the expected amount of money in the till and the actual amount in the till can be investigated by reconciling the till for the transactions made by each staff member.

Advantageously the or a further control unit may be integrated within a cabinet having a plurality of reception regions for a plurality of containers. The containers may be placed on a carousel or other motorised mechanism for delivering the containers to, and removing the containers from, and access region or port where the containers may be opened and/or

removed. Thus only one security container could be accessed or interchanged with such a cabinet at a given time.

Such a system can effectively function as a till and/or cashier's station since access can be made to compartments within a single container, and it can also simultaneously function as a safe because the other containers are enclosed within the body of cabinet and cannot be reached. Where the container includes its own data processor and spoiling systems, it may nevertheless recharge itself at the till or cashier's station.

Preferably the cabinet is physically robust and/or includes protection and/or spoiling mechanisms connected to or provided in the interiors of the or each security container within the cabinet.

Preferably the access to the compartments of a till or teller's workstation are under computer control with no opportunity for the teller to instruct the opening of the compartments without a transaction having been completed. This means that control of till drawer is not in the hands of the cashier, thereby reducing the potential for threats to be made to the cashier to open the drawer during an attack, since they do not have the ability to do so.

Preferably the container can also be used within a cash handling centre where automated means, such as robotic arms, are arranged to remove cash from the compartments, to place the cash in cash counting machines (such machines already constitute part of the prior art) and/or to place the counted notes in domination stacks or automatic teller machine dispensers.

The automatic teller machine dispensers (here and after ATMs) may then dispense money to be placed in the containers for delivery to banks or stores.

According to a second aspect of the present invention, there is provided a security cabinet having a plurality of receiving stations, each arranged to engage with a security container

wherein the security container is subdivided into a plurality of compartments, and an access control element is provided such that only one compartment can be opened at a time.

It will be appreciated that an access control mechanism may be provided as part of the aperture of a cabinet. This cabinet access control mechanism may be used in preference to, or may replace, the access control mechanism provided as part of a security container.

According to a third aspect of the present invention, there is provided a method of protecting objects during transport and/or storage, comprising the steps of defining a plurality of compartments within a container, the container having an access control element such that only one compartment can be opened at a time, allocating a compartment to a client, and in response to predetermined actions, opening the compartment allocated to a first client, placing into the container or removing therefrom goods associated with the first client, and after the completion of that action, closing the container.

According to a fourth aspect of the present invention there is provided a transportation method for delivering items to, or removing items from, a plurality of clients or places, the method comprising allocating one or more of a plurality of compartments within a container to an associated client, and restricting access to that compartment until the container is either at a secure station or at the client, and then allowing access to the client's compartments such that goods may be placed into or removed from the compartments, and then closing the compartments before the container is removed from the secure station or the client.

It is thus possible to provide a container which may, for example, be loaded with cash at a cash delivery centre for delivery to a number of clients such as shops within a shopping mall. The security guard may then remove the container from a cash in transit vehicle and progress to the first shop, at which point the or each compartment allocated to the first shop is opened such that cash may be delivered to the shop and that the takings from the previous day may be loaded into the compartments. The compartments are then closed and the container is taken to a second shop where the process is repeated except that only compartments allocated to the second shop can be opened. Further shops may be visited in

a single delivery run. At each shop, a security code is presented to the container in order to confirm to a data processor controlling the container that it is at its correct destination. This code may be presented by negotiation with a shop's security system, or may simply be the use of keys or a code entered by a trusted member of staff of that shop.

The present invention will further be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is an exploded perspective view of a security container constituting an embodiment of the present invention;

Figure 2 schematically illustrates an internal compartment of the container;

Figure 3 schematically illustrates how the security container of Fig. 1 can interface with a base station;

Figure 4 schematically illustrates how the container of Fig. 1 can interface with a portable hood;

Figure 5 schematically illustrates a cashier's station constituting an embodiment of the present invention;

Figure 6 shows the aperture in the access control element of Figure 1 in greater detail;

Figure 7 schematically illustrates the arrangement of security containers within a cabinet constituting a further embodiment of the present invention; and

Figures 8 to 11 show views of a compartment allocation and cash reconciliation report for a container in use as a till.

Cash transit systems have hitherto been generally targeted towards large users, such as banks. Fig. 1 schematically illustrates a security container which can still satisfy the requirements of the banks for transporting cash, but which can also be used to collect cash

or other valuables, or deliver documents to multiple sites within a single delivery run. The container, generally indicated 2, as shown in Fig. 1 defines a secure volume which is subdivided into a plurality of compartments, of which compartments 4, 6, 8 and 10 are illustrated. The container 2 comprises an attack resistant mechanically robust outer wall. A sliding door 12 is also provided. The door 12 has an aperture 14 therein, as illustrated in Fig. 6 allowing access to only a selected one of the compartments 4, 6, 8 or 10. Furthermore, as shown in Fig. 2, the compartments, for example compartment 4, are provided with hinged lids 16. The provision of the lid 16 ensures that the contents of the compartment cannot be exposed until the aperture 14 is accurately aligned with the lid 16, since any mismatch prevents the lid from being opened. Thus of the plurality of compartments, of which there may be many in a single container 2, only one compartment can be opened at a time.

Although the compartments have been shown as being of equal size, some compartments may be bigger than others.

Each compartment 4 to 10 is connected to an ink delivery duct 18 which runs along the interior of one of the faces of the container 2. The duct 18 has a plurality of apertures, each arranged to align with the corresponding aperture 20 formed in the side of the compartments. The duct terminates in an engagement region 22 of the container. A similar duct is formed down the other side of the container, thereby ensuring that a spoiling agent, such as ink can be delivered into the compartments rapidly.

The body of the container may be formed by a composite material having conductors embedded therein such that any attempt to penetrate the body of the container will result in damage to an electrical circuit thereby signalling an attack to an associated security system. Similarly, the compartments, or at least the lids thereof, may also be formed from material having conductors embedded therein such that an attempt to penetrate these is also signalled to a security system.

In use, the container is engaged with a control unit which may either be integrated into a base station, as shown in Fig. 3 or into a detachable lid, as shown in Fig. 4 or may be

enclosed within the container itself. The base station 30 as shown in Fig. 3 may be provided within a cash in transit vehicle, within a till or within storage areas within a shop or a bank. Furthermore, a plurality of stations may be provided within a security cabinet. The base station has an upstanding connection unit 32 which engages the correspondingly sized attachment region 22 formed in the container 2. The connecting unit 32 has locking means (not shown) which mechanically engage with the container 2 so as to prevent the unit from separating therefrom. An additional locking element may also be formed in the vicinity of the remote end 34 of the base unit. The base unit 30 comprises an ink reservoir, delivery system and data processor. The ink delivery system has outlet apertures formed in the upstanding unit 32 which, in use, align with the end of the delivery duct 18 when the base unit is secured to the container. The upstanding connection unit 32 also houses a drive mechanism for controlling the position of the sliding door. The hood shown in Fig. 4 is similar to the base unit 30 except that ink tank, locking mechanism and firing electronics are all in the end portion 36 which has a protruding portion 38 which serves to lock onto the attachment region 22 of the container 2. Access controller electronics and anti-theft measures and penetration detection features, such as wires buried in the hood may interface with electronics located in the portion 36 or hinged portion. Furthermore, the exterior of the portion 36 and the hinged region of the hood 38 may be designed to deform under duress, thereby providing sacrificial elements thereby enabling the security system to operate to spoil the contents of the container. Similar penetration detection features may also be included in the container.

In use, a container may be preloaded with the cash at a cash centre, and then may be transported to a cash in transit vehicle where it is engaged with a base unit of the type shown in Fig. 3. Once the cash in transit vehicle has reached its delivery destination, such as a shopping mall, the hood unit of the type shown in Fig. 4 is engaged over the top of the container 2 and the remote end 40 of the hood 38 is secured to the corresponding end of the container 2 via locking means (not shown).

The guard can then carry the container from the delivery vehicle to the first drop-off point, which typically would be a shop. The guard presents the container at the shop and then inputs an authorisation code onto a keypad located on the rear face of the end portion 36.

Depending on the security protocol involved, a member of staff from the shop may also need to input their code before the lid 40 releases and the door 12 is moved under the control of the data processor to bring the aperture 14 into alignment with the compartment allocated to that shop. The guard may then open the lid 16 of the compartment in order to withdraw the money therefrom. This money may represent the float for the next day's trading. Similarly, the day's takings to date may be placed in one of the compartments and then the compartment closed. The data processor keeps track of which deliveries and pick ups have been made and allocated to which containers such that a unique correspondence always exists between the contents of a compartment and its ownership. Further deliveries to other shops may be made until all of the compartments have been allocated. The security operative may then return the security container to the cash in transit vehicle where it is placed above the base station 30, and the base station 30 and lid 36 negotiate in order to transfer responsibility for the container from the lid 36 to the base station 30.

The containers may also be delivered to a secure cabinet, for example of the type shown in Figs. 5 and 7. Fig. 5 schematically illustrates a bank teller's terminal. A keyboard 50 and display unit 52 are provided such that the operator can interface with the bank's computer. The bank's computer is arranged to authenticate transactions entered by the teller, and also to control the operation of a security cabinet 54 located adjacent to the teller. The cabinet 54 comprises a secure armoured box having a single aperture 56 provided therein through which containers 2 of the type herein before described can be inserted and extracted in order to locate with a plurality of base stations 60 to 72 located within the cabinet 54 and movable on a carousel mechanism such that each base station can be presented at the aperture 56. Once the correct container has been presented, the base station then operates the slidable shutter in order to open a selected one of the compartments. Thus the number of individual compartments controllable by the system is equal to the number of containers loaded into the cabinet 54 multiplied by the number of compartments that each one has. Thus the system can easily define 70 or more individually addressable compartments.

This has the advantage that the compartments may be handled in different ways. Thus during the day the teller may initially receive a large number of £20 notes. Once a sufficiently large value, such as £5,000 has been received, the system may instruct the teller

to move these notes to a designated compartment within one of the security containers which the system intends to keep hidden within the volume of the cabinet. Once this has been done, the teller may continue her normal work. Supposing that, later in the day, the teller or another teller begins to run short of £20 notes, the computer system can then instruct the teller to retrieve the large bundle of notes that had previously been put in the secure compartment. The system has a particular advantage in that the teller's till effectively functions as a safe. Such a till need not be confined to banks, but may also be installed in post offices dealing with pensions or tax discs, and may also be provided in pharmacies or the like for storing drugs. In such a situation, the cabinet 54 may also be refrigerated. Furthermore, since the computer keeps an identifiable audit of who had access to which compartment within any given container, undetected theft from the system becomes exceptionally difficult indeed.

It will be appreciated that the cabinet need not be heavily armoured if it is acceptable to rely on the security provided by a spoiling system within the cabinet.

In the context of a banking system, at the start of a day a cash in transit van may leave the cash handling depot filled with cabinets with cassettes destined for different locations and with different type of contents. If the first stop is a bank, the guard may then lock the hood as shown in Fig. 4 onto the container 2, carry it to the bank, negotiate with the bank security systems, gain entry into the bank and then open the hood 38 and to engage the container 2 with one the base stations held in the bank, for example one of the stations within the container 54. During the day, if the bank begins to run out of, for example, £10 the computer may then authorise the cashier to gain access to one of the compartments of the container which contains £10. Furthermore, during a customer transaction, for example when a customer cashes a cheque, the bank may wait for its computer to authorise that the funds are available. Once this has done, the relevant compartments within the container 2 are opened so that the cashier can remove an appropriate amount of cash. Because the authorisation comes from the bank's computer against an authorisation of funds, a situation of duress on the cashier is avoided because the cashier can only obtain access to the cash when the cheque has been authorised by the computer. A similar concept can be expanded to post offices whereby, for example, pension books can only be presented once a data

system has given authorisation. Furthermore, even if the book is held in another cabinet or another till, or in a central store, the removal is associated with a given cashier and hence movement of the goods can be audited. Furthermore, if a signed receipt is obtained, this can be put into a compartment for storage.

The system also allows reconciliation of the contents of the container to be performed more easily.

Figure 8 schematically illustrates a display of spreadsheet which tracks the activities in relation to 10 compartments labelled 1 to 10. The row headed "contents value" indicates the amount of cash which is being allocated to each compartment and the row headed operator allocation is used to denote which operator has had access to the compartments. In the example shown, compartment 5 has already been allocated for use with £10 but has not been allocated to an operator. In Fig. 8 no cash has actually been placed in the compartments.

The cash centre now puts a small amount of money into each compartment as indicated in Fig. 9. Thus one £5 has been put in compartment 1, one in compartment 2, one in compartment 3, a £10 in each of compartments 4 and 5 but no other compartments have been filled. Thus the container contains a total of £35.

Now assume that this container is inserted into a till of a shop. During a transaction, an operator may, for example, make a sale to the value of £25 and is handed a £20 note and a £10 note the operator's identity is also known (in this example operator 1). The values of the sale and the notes presented are entered into a computer which allocates compartments 6 and 7 to cashier number 1 as shown in Fig. 10. These compartments will no longer be accessible to any other cashiers. The compartments 6 and 7 are opened one at a time and the operator inserts the notes into the relevant compartment. The till then opens compartment 3 such that the change of a £5 can also be handed out. Thus the compartment 3 is also allocated to that cashier. At the end of the transaction, the spreadsheet contains a record of values as set out in Fig. 10.

Now suppose that a second transaction takes place at the same till but this time by operator 2 who makes a sale for £5 and is handed a £10 note. The next available £10 section not allocated to an operator is compartment number 5 which is now allocated to the operator in order that they can place a £10 therein. Similarly, compartment 2 from which a £5 is to be removed is also allocated to that operator. Thus the spreadsheet might now be as shown in Fig. 11. It will be seen that an audit of the notes added into the till and removed from the till at each transaction is maintained together with running totals. A continuing log of transactions can be maintained.

By comparing the transactions logged with the money in the containers, it is possible to not only check that the till balances correctly, but also to check that no operative has been careless or deceitful in their handling of the cash since each operator is effectively provided with a private till given that they cannot access the cash stores of any other operator within that till.

At the end of the day, a security guard may present the transport hood, as illustrated in Fig. 4, to the container within the till thereby allowing the container to be released from the till and taken to a cash depot. The cash depot may be located locally, or may be more distant requiring transport thereto via a vehicle. In any event, at the depot a plurality of containers, which may for example be stored in cabinets similar to cabinet 54 described herein before with respect to Figs. 5 and 7, are placed into a processing room for processing. If cabinets are involved, the various containers within them may be presented to the aperture 56 and the individual compartments opened such that the contents thereof can be removed either by trusted individuals or by a robotic system. Notes may then moved towards a note counter which counts the notes and from then on the notes may be placed in note stack. A note counter and a note stack are prior art technology.

Notes from the note stack will be placed in an ATM machine which may be used to refill selected compartments of the containers with predetermined amounts of money. Movements of notes may, once again, be reformed by trusted individuals or by automatic systems, such as robotic arms.

A container constituting an embodiment of the present invention may also be used in a medical environment, for example in the delivery of drugs to patients. An access control computer could keep a record of which drug has been delivered to which patient and by which member of staff. This not only reduces the risk of drug theft, but in combination with a suitable patient identification system, such as tags bearing codes on the patient, also reduces the risk of mis-administering a drug to the wrong patient.

It is thus possible to provide a secure yet versatile container which may simultaneously form a part of a cash in transit system, a till, and a vault. The container is also utilisable within a cash dispensing system of the type generally installed at cash centres. The provision of a self contained security container incorporating its own data processor, communications systems and ink/dye spoiling system is particularly advantageous as it means the container can permanently protect valuables contained therein, even when it forms part of a till or cashiers station.

Claims

1. A security system comprising a container sub-divided into a plurality of compartments, the container having an access control element such that only one compartment can be open at a time, and an operating mechanism responsive to a controller for moving the access control element so as to allow access to a selected compartment.
2. A security system as claimed in claim 1, in which the access control element is a moveable shutter having an aperture formed therein.
3. A security system as claimed in claim 2, in which the aperture is dimensioned such that when the aperture is aligned with a compartment, only the contents of that single compartment can be accessed.
4. A security system as claimed in claim 2 or 3, in which some or all of the compartments have a lid, with the lid of each compartment being dimensioned such that it can only open when the aperture of the shutter is correctly aligned with the compartment.
5. A security system as claimed in any one of the preceding claims having first and second access control elements, which elements must be correctly aligned in order to allow a compartment to be opened.
6. A security system as claimed in any one of the preceding claims, in which the container has at least one engagement region for releasably engaging with a control unit, or a support.
7. A security system as claimed in any one of the preceding claims, in which the controller is provided as a control unit which includes one or more of a data processor, a motor for driving the access control element, and a spoiling system.
8. A security system as claimed in claim 7, in which the data processor is arranged to communicate with other security systems.

9. A security system as claimed in claim 8, in which the data processor communicates with other security systems to validate that the container has been taken to the correct location for a pick up or delivery.
10. A security system as claimed in claim 7, 8, or 9, in which, once at a delivery or pick up point, the data processor causes the motor to move the access control element to open a predetermined one of the compartments.
11. A security system as claimed in any one of claims 7 to 10, in which the control unit further includes a locking mechanism for engaging the control unit with a security container.
12. A security system as claimed in any one of claims 7 to 10, in which the control unit is part of or within the security container.
13. A security system as claimed in any one of the preceding claims, in which the controller keeps a log which compartment is allocated to each client or class of contents.
14. A security system as claimed in any one of claims 7 to 10, in which the data processor is responsive to manually operated access control means.
15. A security system as claimed in any one of the preceding claims, in which the controller includes a spoiling mechanism comprising ink or dye which is injected under pressure via a delivery path into the compartments of the container in order to spoil their contents in the event of an attack.
16. A security system as claimed in claim 7, in which the control unit has a sacrificial hood attached thereto, the hood having penetration detection means, such that in the event of an attack the hood becomes damaged but in so doing gives a security system sufficient time to operate a spoiling mechanism to ensure that the contents of the compartments are spoiled.

17. A security system as claimed in any one of the preceding claims, in which the container has penetration detection means such that in the event of an attack penetration of the container can be detected and used to initiate operation of a spoiling means.
18. A security system as claimed in any one of the preceding claims, in which the container is used to make multiple deliveries and collections, and in which a compartment can be allocated in a delivery mode and reallocated for use in a collection mode once a delivery from the compartment has been made.
19. A security system as claimed in any one of the preceding claims, in which the container has an engagement region which can engage with two control units simultaneously.
20. A security system as claimed in any one of the preceding claims, in which the container has a plurality of engagement regions.
21. A security system as claimed in any one of the preceding claims in combination with a till, wherein the system allocates a particular denomination of currency to at least one compartment.
22. A security system in combination with a till as claimed in claim 21, in which different compartments are allocated to different members of staff.
23. A security system as claimed in any one of the preceding claims, in which the system is provided within a cabinet having reception regions for a plurality of containers.
24. A security system as claimed in claim 23, in which the containers are held on a mechanism for delivering containers to and removing containers from an access region.
25. A security system as claimed in claim 24 further including a spoiling mechanism for spoiling the contents of each container within the cabinet.
26. A teller station including a security system and a till as claimed in any one of claims 21 and 22, or including a security system as claimed in claims 23 to 25.

27. A teller station as claimed in claim 26, wherein access to the compartments is under control of a data processor and the teller is not able to instruct the opening of the compartments without a transaction being completed.
28. A security cabinet having a plurality of receiving stations, each arranged to engage with a security container, wherein the security container is subdivided into a plurality of compartments, and wherein an access control element is provided such that only one compartment can be opened at a time.
29. A security cabinet as claimed in claim 28, wherein the access control element is part of the security cabinet.
30. A method of protecting objects during transport and/or storage, comprising the steps of defining a plurality of compartments within a container, the container having an access control element such that only one compartment can be open at a time, allocating a compartment to a client, and in response to predetermined actions, opening the compartment allocated to the client, placing into the compartment or removing from the compartment goods associated with the client, and closing the container.
31. A method as claimed in claim 30, wherein the predetermined action is the entry of a security code or use of a key.
32. A method as claimed in claim 30, where the client is a teller or a till operator.
33. A method as claimed in claim 30, where the goods are money.
34. A method of transporting items to or from a plurality of clients, the method comprising the steps of allocating one or more of a plurality of compartments within a container to an associated client, and restricting access to that compartment until the container is either at a secure station or at the client, and then allowing access to the client's compartment such that goods may be placed into or removed from the compartments

before the container is removed from the secure station or the client.

35. A method as claimed in claim 34, wherein the container has a closure element, and wherein the closure element only allows one compartment to be open at a time, the closure element being responsive to a controller for enabling the correct compartment to be opened.

Amendments to the claims have been filed as follows

1. A security system comprising a portable container sub-divided into a plurality of compartments, the container including a moveable shutter having an aperture formed therein such that only one compartment can be open at a time, and an operating mechanism responsive to a controller for moving the moveable shutter so as to allow access to a selected compartment.
2. A security system as claimed in claim 1, in which the aperture is dimensioned such that when the aperture is aligned with a compartment, only the contents of that single compartment can be accessed.
3. A security system as claimed in claim 1 or 2, in which some or all of the compartments have a lid, with the lid of each compartment being dimensioned such that it can only open when the aperture of the shutter is correctly aligned with the compartment.
4. A security system as claimed in any one of the preceding claims having first and second access control elements, which elements must be correctly aligned in order to allow a compartment to be opened.
5. A security system as claimed in any one of the preceding claims, in which the portable container has at least one engagement region for releasably engaging with a control unit, or a container base station or a lid.
6. A security system as claimed in any one of the preceding claims, in which the controller includes one or more of a data processor, a motor for driving said moveable shutter, and a spoiling system.
7. A security system as claimed in claim 6, in which the data processor is arranged to communicate with other security systems.

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8. A security system as claimed in claim 7, in which the data processor communicates with other security systems to validate that the portable container has been taken to the correct location for a pick up or delivery.
9. A security system as claimed in claim 6, 7, or 8, in which, once at a delivery or pick up point, the data processor causes the motor to move the access control element to open a predetermined one of the compartments.
10. A security system as claimed in any one of claims 6 to 9, in which the controller further includes a locking mechanism for engaging the controller with the portable container.
11. A security system as claimed in any one of claims 6 to 9, in which the controller is part of or within the portable container.
12. A security system as claimed in any one of the preceding claims, in which the controller keeps a log of which compartment is allocated to each client or class of contents.
13. A security system as claimed in any one of claims 6 to 9, in which the data processor is responsive to manually operated access control means.
14. A security system as claimed in any one of the preceding claims, in which the controller includes a spoiling mechanism comprising ink or dye which is injected under pressure via a delivery path into the compartments of the portable container in order to spoil their contents in the event of an attack.
15. A security system as claimed in claim 6, in which the controller has a sacrificial hood attached thereto, the hood having penetration detection means, such that in the event of an attack the hood becomes damaged but in so doing gives a security system sufficient time to operate a spoiling mechanism to ensure that the contents of the compartments are spoiled.

16. A security system as claimed in any one of the preceding claims, in which the portable container has penetration detection means such that in the event of an attack, penetration of the portable container can be detected and used to initiate operation of a spoiling means.
17. A security system as claimed in any one of the preceding claims, in which the portable container is used to make multiple deliveries and collections, and in which a compartment can be allocated in a delivery mode and reallocated for use in a collection mode once a delivery from the compartment has been made.
18. A security system as claimed in any one of the preceding claims, in which the portable container has an engagement region which can engage with two controllers simultaneously.
19. A security system as claimed in any one of the preceding claims in combination with a till, wherein the system allocates a particular denomination of currency to at least one compartment.
20. A security system in combination with a till as claimed in claim 19, in which different compartments are allocated to different members of staff.
21. A security system as claimed in any one of the preceding claims, in which the system is provided within a cabinet having reception regions for a plurality of portable containers.
22. A security system as claimed in claim 21, in which the portable containers are held on a mechanism for delivering portable containers to and removing portable containers from an access region.
23. A security system as claimed in claim 22 further including a spoiling mechanism for spoiling the contents of each portable container within the cabinet.

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24. A teller station including a security system and a till as claimed in any one of claims 19 and 20, or including a security system as claimed in claims 21 to 23.
25. A teller station as claimed in claim 24, wherein access to the compartments is under control of a data processor and the teller is not able to instruct the opening of the compartments without a transaction being completed.
26. A method of protecting objects during transport and/or storage utilising a security system according to any one of claims 1 to 23, comprising the steps of allocating a compartment to a client, and in response to predetermined actions, opening the compartment allocated to the client, placing into the compartment or removing from the compartment goods associated with the client, and closing the container.
27. A method as claimed in claim 26, wherein the predetermined action is the entry of a security code or use of a key.
28. A method as claimed in claim 26, where the client is a teller or a till operator.
29. A method as claimed in claim 26, where the goods are money.
30. A method as claimed in claim 26, wherein the predetermined action is the placing of the portable container at a secure station.

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INVESTOR IN PEOPLE

Application No: GB 0025326.0
 Claims searched: 1-27

Examiner: Joanne Pullen
 Date of search: 4 January 2001

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): E2X X5, X7

Int Cl (Ed.7): E05G

Other: Online: EPODOC, WPI, JAPIO.

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	WO 98/58149 A1 (Australian Postal Corp) Figures 1-3 and page 5 lines 1-36.	1
X	WO 98/57020 A1 (Cash America International Inc.) Figures 1, 3, 4a and 4b, page 2 lines 16-32, page 4 lines 6-13, page 5 lines 22-32, page 6 lines 11-17, page 10 lines 13-17.	1, 2, 5, 7, 8, 13 & 14
X	FR 2557627 A (Credit Agricole Mutuel) Figures and abstract.	1-5
X, Y	US 5615625 A (First National Bank of South Africa) Figures 1 and 2, column 1 lines 31-42 and 52- column 2 line 10, column 2 lines 34-42 column 3 lines 10-14, 18-20, 51-52 column 4 lines 25-30, 64-67.	X 1, 6-13 & 15-18, Y 25
X	US 4975012 A (Motoda Electronics Co.) Figures 1 and 2 column 3 lines 31-35, column 4 lines 43-50, column 5 lines 23-45 and column 6 lines 7-12	1, 5, 6, 7, 10 & 14

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.



INVESTOR IN PEOPLE

Application No: GB 0025326.0
Claims searched: 1-27

Examiner: Joanne Pullen
Date of search: 4 January 2001

Category	Identity of document and relevant passage		Relevant to claims
X, Y	US 4724774 A	(Vidmar AG) Figures and column 2 lines 38-60, column 3 lines 30-37 and column 4 lines 35-46.	X 1, 5-7, 10, 14, 23 & 24 Y 25
X	US 4643107 A	(Bellsouth Corp) Figures and column 2 line 41-column 3 line 25.	1 & 5

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.



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